	Application No.	Applicant(s)
Notice of Allowability	10/765,153	HE ET AL.
	Examiner	Art Unit
	Khanh Dinh	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/14/2005*.

2. ☒ The allowed claim(s) is/are *21-28*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
      Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Khanh Dinh
A.U. 2151

ALLOWANCE

1.   This is in response to the Preliminary Amendment filed on 1/28/2004. Claims 1-

11 are canceled. New claims 12-23 are presented for examination.

Election/Restriction

2.   Claims 12-23 are presented for examination.

3.   Restriction to one of the following inventions is required under 35 U.S.C. 121:

I.   Claims 12-19, drawn to a system for accessing and transmitting data

frames of different types including a mapping/demapping device and a

control device to control other devices, classified in class 709, subclass

201.

II.   Claim 20, drawn to a method for receiving and transmitting data of

different types in a digital transmission network by extracting type number

information from received data frames and searching for a rule in a

processing flow database corresponding with the extracted type number,

classified in class 709, subclass 202.

III.   Claims 21-23, drawn to a method for accessing and transmitting data

frames of different types entering a computer system via a User Network

Interface (UNI) by performing matching operation for the data frames,

modifying the data frames by inserting data type number in the data

frames, classified in class 709, subclass 246.

The inventions are distinct, each from the other because of the following reasons:

4.   Inventions I, II and III are related as subcombinations disclosed as usable

together in a combination. The subcombinations are distinct from each other if they are

shown to be separately usable. In the instant case, invention I has separate utility such

as to a system for accessing and transmitting data frames of different types including a

mapping/demapping device and a control device to control other devices, classified in a

different Class/Subclass.   Invention II has separate utility such as a method and system

for a method for receiving and transmitting data of different types in a digital

transmission network by extracting type number information from received data frames

and searching for a rule in a processing flow database corresponding with the extracted

type number, classified in a different Class/Subclass.   Invention III has separate utility

such as a method for accessing and transmitting data frames of different types entering

a computer system via a User Network Interface (UNI) by performing matching

operation for the data frames, modifying the data frames by inserting data type number

in the data frames, classified in a different Class/Subclass.

5.   The inventions are distinct, each from the other, because of the following

reasons:

          (a) These inventions have acquired a separate status in the art as

     shown by their different classifications.

(b) The search required for each Group is different and not co-extensive for examination purposes.

For example, the searches for the three inventions would not be co-extensive because these Groups would require different searches on PTO's classification class and subclass as following:

the Group I search (claims 12-19) would require use of search **class 709, subclass 201** (not require for the inventions II, III).

the Group II search (claims 20) would require use of search **class 709, subclass 202** (not require for the inventions I, III).

the Group III search (claims 21-23) would require use of search **class 709, subclass 246** (not require for the inventions I, II).

For the reasons given above restriction for examination purposes as indicated is proper.

6.   During a telephone conversation with Raymond Van Dyke on 10/14/2005 a provisional election was made without traverse to prosecute the invention of group III, claims 21-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7.   Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by

a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8.   Therefore, claims 21-23 are presented for examination.

EXAMINER'S AMENDMENT

9.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

      Authorization for this examiner's amendment was given in a telephone interview

with Raymond Van Dyke (the Undersigned Attorney, Reg. No.34,746) on 10/14/2005.

      The application has been amended as follows:

IN THE CLAIMS:

Please **cancel** claims 1-20.

Please **add** new claims 24-28.

Please **amend** claims as follows:

      --1-20.(Cancelled)

      21. (Currently Amended) A method of accessing and transmitting data frames of

different types in [[the]] a system accessing [[and transmitting different data frames in]] a

digital transmission network, said method processes the data frames, which enter the

system via a user-network interface [[(UNI)]], via the following steps:

performing a matching operation for the data frames according to classifying rules;

modifying the data frames according to [[the]] predefined classifying rules by inserting at least one data type number in [[the]] at least one of said data frames;

transferring the modified data frames to [[the]] a data processing and dispatching device;

searching for a [[corresponding]] processing unit [[according]] corresponding to [[the]] said at least one data type number in [[the]] at least one of said data frames;

transferring the data frames to said [[found]] processing unit;

determining whether said [[found]] processing unit is a virtual interface device;

if said [[found]] processing unit is not a virtual interface device,

then [[processing]] said data frames are processed by said [[found]] processing unit;

[[modifying the]] at least one data type number of said data frames is modified;

[[transferring]] said modified data frames are transferred to said data processing and dispatching device; and

said system loops [[looping]] back to the step of searching for the [[corresponding]] processing unit [[according]] corresponding to [[the]] said at least one data type number in said data frames, and searching for the [[corresponding]] processing unit again; and

if said [[found]] processing unit is a virtual interface device,

then [[using]] said virtual interface device is employed to find a

corresponding device interface according to [[the]] said at least one data type number in

the data frames;

[[using]] said virtual interface device [[to modify]] modifies the data frames

by deleting [[the]] said at least one data type number from the data frames; and

[[using]] said virtual interface device [[to]] transfers the modified data

frames to said corresponding device interface [[(UNI or NNI)]] in order to output the

modified data frames via said interface.

22. (Currently Amended) A method according to claim 21, wherein the step of

transferring the modified data frames to said corresponding device interface by said

virtual interface device further comprises mapping said data frames if said data frames

are transferred to [[an]] a network-network interface.

23. (Currently Amended) A method according to claim 21, wherein the step of

processing said data frames entering the system via a [[NNI]] network-network interface

further comprises the step of demapping said data frames.

24. (New) A method according to claim 21, wherein said corresponding device

interface comprises either a user-network interface or a network-network interface.

25. (New) A system accessing and transmitting different data frames in a digital transmission network, said system processing the data frames, which enter the system via a network device interface, said system comprising:

matching means for performing a matching operation for the data frames according to classifying rules;

modification means for modifying the data frames according to predefined classifying rules, said modification means inserting at least one data type number in at least one of said data frames;

first transfer means for transferring the modified data frames to a data processing and dispatching device;

search means for searching for a processing unit corresponding to said at least one data type number in the data frames;

second transfer means for transferring the modified data frames to said processing unit;

said system then determining if said processing unit is a virtual interface device;

if said processing unit is not a virtual interface device, then

said modified data frames are processed by said processing unit;

said modification means modifies at least one data type number in at least one of said data frames;

said transfer means transfers said modified data frames to said data processing and dispatching device; and

said system loops back to said searching means which searches for the corresponding processing unit according to said at least one data type number in said modified data frames, and searches for a corresponding processing unit again; and

if said processing unit is a virtual interface device, then

said virtual interface device locates a corresponding device interface according to at least one data type number in at least one of said modified data frames;

said virtual interface device modifies said modified data frames by deleting said at least one data type number from said at least one of said modified data frames; and

said virtual interface device transfers the modified data frames to a corresponding device interface in order to output the modified data frames via said interface.

26. (New) A system according to claim 25, further comprising mapping means for mapping said data frames if said data frames are transferred to a network-network interface.

27. (New) A system according to claim 25, wherein said processing unit processing said data frames entering the system via a network-network interface demaps said data frames.

28. (New) A system according to claim 25, wherein said network device interface comprises either a user-network interface or a network-network interface.--

IN THE SPECIFICATION

Please replace the abstract as follows:

Abstract

--A method and system for accessing and transmitting different types data frames in a digital transmission network, wherein the system includes a data processing and dispatching device having at least an inter-device interface, a processing flow database, and a control interface unit, and wherein the method includes the steps of extracting type number information from data frames, searching for rules in the processing flow database corresponding to the extracted type number, determining the retrieved result and discard the data frames if the retrieval result i[[t]]s blank, otherwise extracting an inter-device interface number and outputting the data frames via the inter-device interface with the extracted inter-device interface number.—

Allowable Subject Matter

10.   Claims 21-28 are allowed.

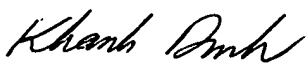11.   The following is an examiner's statement of reasons for allowance:

The above mention claims are allowable over the prior art of record does not appear to each or render obvious the claimed limitations as recited in independent claims and subsequent dependent claims. None of the cited prior art discloses or teaches a method of accessing and transmitting data frames of different types in a system accessing a digital transmission network, said method processes the data frames, which enter the system via a user-network interface, comprising the steps of: performing a matching operation for the data frames according to classifying rules and modifying the data frames according to predefined classifying rules by inserting at least one data type number in at least one of said data frames, searching for a processing unit corresponding to said at least one data type number in at least one of said data frames. The invention method further includes determining whether said processing unit is a virtual interface device; if said processing unit is not a virtual interface device, then said data frames are processed by said processing unit; modifying at least one data type number of said data frames, looping back to the step of searching for the processing unit corresponding to said at least one data type number in said data frames, and searching for the processing unit again; and if said processing unit is a virtual interface device, then using said virtual interface device to find a corresponding device interface according to said at least one data type number in the data frames and using said virtual interface device to modify the data frames by deleting said at least one data type number from the data frames.

Conclusion

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on (571) 272-3939.   The fax phone number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khanh Dinh

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10/15/2005